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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,847	08/22/2003	William E. Klunk	076333-0323	8143
22428	7590	10/18/2007	EXAMINER	
FOLEY AND LARDNER LLP			JONES, DAMERON LEVEST	
SUITE 500			ART UNIT	PAPER NUMBER
3000 K STREET NW			1618	
WASHINGTON, DC 20007			MAIL DATE	DELIVERY MODE
			10/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/645,847	KLUNK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	D. L. Jones	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 August 2007.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 is/are rejected.

7) Claim(s) 2-27 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

**ACKNOWLEDGMENTS**

1. The Examiner acknowledges receipt of Applicant's request for reconsideration filed 8/1/07.

Applicant asserts that the claims are non-obvious over one another because 10/388,173 does not disclose any particular location of the isotope whereas in the instant application the radioisotope is on R2 or R4. In addition, Applicant asserts that claim 1 of the instant invention recites only benzothiazole anilines whereas claim 4 of 10/388,173 encompasses benzothiazole phenols as well. Finally, Applicant asserts that claim 1 of the instant invention requires R2 to be a non-radioactive halogen or radioactive halogen whereas claim 4 of 10/388,173 allows the corresponding substituent in the benzothiazole aniline to be hydrogen or alkyl in addition to a halogen.

Applicant's arguments are not persuasive for the reasons set forth below. First, a double patenting rejection is made whenever applications contain overlapping subject matter. An application does not have to read exactly in order for double patenting to be present. If so, then one would have statutory, not obviousness type double patenting. For the instant application, 10/388,173 encompasses the instant invention because while 10/388,173 requires the presence of an isotope (e.g., radiohalogen), the radiohalogen is not limited to a particular location on the structure. As a result, the radiohalogen may be present at position R2 as in the instant invention. Also, it should be noted that 10/388,173 discloses Compounds 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, and 39 all of which have an halogen at the R2 position of the instant invention which 10/388,173 discloses could be radiolabeled. Furthermore, Applicant's assert that

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10/388,173 broadly encompasses benzothiazole phenols as well does not negate the fact that it discloses benzothiazole aniline species that overlap in both inventions.

Furthermore, Applicant's assertion that 10/388,173 allows the corresponding substitute at the R2 position (instant invention) to be hydrogen and alkyl in addition to halogen simply indicates that the applications contain overlapping subject matter which is the basis of the double patenting rejection.

Note: It is duly noted that Serial No. 10/388,173 was allowed and is now US Patent No. 7,270,800. Thus, the double patenting rejection was modified such that it is no longer a provisional double patenting rejection.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

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F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 4 of U.S. Patent No. 7,270,800. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed to products having a radiolabeled halogen. The claims differ in that those of the patented invention do not limit the location of the radiolabeled element. However, a skilled artisan would recognize that since both sets of claims require a radioisotope and those of the patented invention are not limited to any particular location, the skilled artisan would recognize that it is within the skill of an ordinary practitioner in the art to have a radioactive halogen at position R2 because Compounds 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, and 39 of the patented invention all contain a halogen in the R2 position and fulfill the requirements of the other variables

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(R1, R3, and R4) of the instant invention. Specifically, the skilled artisan would recognize that since the patented claims disclose that the radioisotope is 131I, 125I, 123I, 18F, or 19F and the instant invention allows for R2 to be a radiohalogen at position R2, the claims contain overlapping subject matter.

### **CLAIM OBJECTIONS**

4. Claims 2-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **COMMENTS/NOTES**

5. As stated in the office action mailed 5/2/07, no prior art is cited against the instant claims. However, Applicant MUST overcome the double patenting rejection. It should be noted that the claims are distinguished over the prior art because the prior art neither anticipates nor renders obvious compounds and uses thereof as set forth in the instant application.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (571) 272-0617. The examiner can normally be reached on Mon.-Fri., 6:45 a.m. - 3:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



D. L. Jones  
Primary Examiner  
Art Unit 1618

October 10, 2007